

sealably covering the opening in the apparatus.

A-1
(cancel)

REMARKS

This application has been carefully reviewed in light of the Office Action mailed May 13, 2002. Applicants respectfully submit that the amendments to the claims are a proper, do not constitute new matter, and will not create an additional burden on the Examiner. The amendments are merely to make more explicit that which was implicit, inherent or intrinsic from the overall view of the claims as originally submitted. Therefore, it is respectfully requested that the amendments be entered.

Applicants have amended the specification and claims 9 and 26 as advised by the Examiner. Applicants appreciate Examiner's recommending these changes.

REJECTION OF CLAIMS 1-6 UNDER 35 U.S.C. §102

In the Office Action mailed May 13, 2002, the Examiner rejected Applicants' claims 1-6 under 35 U.S.C. §102 as being anticipated by International Patent WO9919136 to Schafstein et al. In support of Examiner's rejection, Examiner stated:

3. Claims 1 - 6 are rejected under 35 U.S.C. 102(b) as being anticipated by International Patent WO9919136 to Schafstein et al.

Schafstein et al. disclose an apparatus (see Figs. 1 and 2) for use in repairing a leak in a plastic pipe, the apparatus comprising a body (10) constructed of a substantially rigid material and having an upper surface (13) and a lower surface (at 17), the lower surface adapted to be positionable about at least a leak portion of a plastic pipe; and an electrofusion element (17) disposed about the lower

surface of the body operable to sealably couple with the plastic pipe to encapsulate the leak.

Referring to claim 2, Schafstein et al. disclose the apparatus of claim 1 wherein the electrofusion element (17) disposed about the lower surface of the body substantially is capable of defining a perimeter positionable adjacent the leak portion of the plastic pipe to sealably couple with the plastic pipe to encapsulate the leak.

Referring to claim 3, Schafstein et al. disclose the apparatus of claim 2 wherein the apparatus further includes a terminal (18) electrically connected to the electrofusion element (17) operable to energize the electrofusion element.

Referring to claim 4, Schafstein et al. disclose the apparatus of claim 3 wherein the apparatus further includes a fastener (14) operable to secure the apparatus to the plastic pipe.

Referring to claim 5, Schafstein et al. disclose the apparatus of claim 4 wherein the body is a substantially cylindrical body provided with at least one sidewall extending from the body such that the lower surface is positioned on one end of the sidewall.

Referring to claim 6, Schafstein et al. disclose the apparatus of claim 5 wherein the sidewall defines a cavity (11) in the substantially cylindrical body, the cavity of the substantially cylindrical body in communication with the leak portion of the plastic pipe.

Applicants have cancelled claim 1 and amended dependent claim 2 to include all of the elements of claim 1 from which it depended. Claim 2 includes the additional element of a single body and an electrofusion element disposed about the lower

surface of the body substantially defining a perimeter positionable adjacent the leak portion of the plastic pipe to sealably couple with the plastic pipe to encapsulate the leak. Applicants respectfully submit that the Schafstein reference does not disclose the elements of claim 2, which has been amended to include all the elements of cancelled claim 1.

Specifically, the Schafstein reference discloses "at least two segments embracing the circumference of the pipe" (see Abstract), not a single body substantially defining a perimeter positionable adjacent the leak portion of a plastic pipe as claimed in Applicants' amended claim 2. Examiner states that Schafstein discloses an electrofusion element disposed about the lower surface of the body substantially capable of defining a perimeter positionable adjacent the leak portion of the plastic pipe. The cited reference requires the two identical segments (13) of the Schafstein reference coupled together to define a perimeter positionable adjacent the leak as provided by Applicants' claim 2.

Thus, the Schafstein reference requires two segments, both having electrofusion elements, to accomplish the novel invention disclosed in the Applicants' claim 2 of a single body provided with electrofusion elements disposed about the lower surface substantially defining a perimeter positionable adjacent the leak portion of the pipe. The Schafstein reference does not teach, disclose or suggest Applicants' invention of a single body defining a perimeter adjacent the leak portion, and as such is incapable of being an anticipatory reference since it fails to disclose each and every element of Applicants' claim 2.

Applicants respectfully request that Examiner withdraw the rejection of amended claim 2 based on 35 U.S.C. §102 and pass the same to issue.

Referring to dependent claim 3, Applicants submit that claim 3 includes each and every element of Applicants' claim 2, which, as discussed above, is not shown in the Schafstein reference, and is allowable for this reason.

Referring to claim 4, the Schafstein reference does not disclose a fastener operable to secure the apparatus to the plastic pipe, and instead discloses "two identical segments 13" that are connected by "clamping means 14, for example, screws and nuts." (see Col. 2, Lines 53-56). Applicants respectfully submit that two identical body members clamped together with screws or nuts do not teach, disclose or even suggest a single body secured to the plastic pipe with a fastener, as claimed in Applicants' claim 4. For this reason, Applicants submit that the Schafstein reference fails as an anticipatory reference and the rejection of claim 4 based on the Schafstein reference should be withdrawn.

Referring to claims 5 and 6, Applicants submit that claims 5 and 6 depend from intervening claims 3 and 4, as well as base claim 2, and include each and every element of the base claim and intervening claims. The Schafstein reference fails as an anticipatory reference to teach, disclose or suggest each and every element of Applicants' claims 5 and 6, as discussed above. In addition, Applicants are unable to ascertain where the Schafstein reference discloses a cavity defined by the sidewalls of a substantially cylindrical body in communication with the

leak portion of the pipe, as suggested by Examiner, other than generally disclosing an arcuate shape intended to conform to the pipe. For these reasons, Applicants request that the Examiner withdraw the rejection of claims 6 under 35 U.S.C. §102 based on the Schafstein reference, and pass the same to issue.

REJECTION OF CLAIMS 13, 16-18 and 24-25 UNDER 35 U.S.C. §102

In the Office Action mailed May 13, 2002, the Examiner rejected Applicants' claims 13, 16-18 and 24-25 under 35 U.S.C. §102 as being anticipated by German Patent 29722603 to Hintzen. In support of Examiner's rejection, Examiner stated:

4. Claims 13, 16-18 and 24-25 are rejected under 35 U.S.C. 102(b) as being anticipated by to German Patent 29722603 to Hintzen.

Hintzen discloses (see Fig. 1) an apparatus for use in repairing a leak in a plastic pipe, the apparatus comprising a first portion (10) having a first pipe engaging electrofusion surface (25), a second pipe engaging electrofusion surface (26), a first contact surface (32), and a second contact surface (33); and a second portion (see page 3, lines 6-10) having a first pipe engaging electrofusion surface (25), a second pipe engaging electrofusion surface (26), a first contact surface (32), and a second contact surface (33) wherein the first portion and the second portion are operable to encapsulate the leak, the first pipe engaging electrofusion surfaces of the first and second portions are operable to couple around the pipe to form a first seal, a second pipe engaging electrofusion surfaces of the first and second portions are operable to couple around the pipe to form a second seal, the first contact surfaces of the first and second portions are operable to sealably

couple with one another, the second contact surfaces of the first and second portions are operable to sealably couple with one another.

Referring to claim 16, Hintzen discloses the apparatus of claim 13 wherein the apparatus further includes a first (28) and a second terminal, the first terminal attached to the first portion and operable to energize the first and second pipe engaging electrofusion surfaces of the first portion, the second terminal (see page 3, line 6-10) attached to at least one of the first and second portions and operable to energize the first and second pipe engaging electrofusion surfaces of the second portion.

Referring to claim 17, Hintzen discloses the apparatus of claim 13 wherein the first (32) and second contact surfaces (33) of the first portion are further provided with electrofusion elements operable to sealably couple the first contact surfaces of the first and second portions to one another and operable to sealably couple the second contact surfaces of the first and second portions to one another.

Referring to claim 18, Hintzen discloses the apparatus of claim 13 wherein the first (32) and second contact surfaces (33) of the first and second portions (see page 3, lines 6-10) are further provided with electrofusion elements operable to sealably couple the first contact surfaces of the first and second portions to one another and operable to sealably couple the second contact surfaces of the first and second portions to one another.

Referring to claim 24, Hintzen discloses a method for sealing a leak in a plastic pipe comprising providing an apparatus comprising a first portion (10) having a first pipe engaging electrofusion surface (25), a second pipe engaging electrofusion surface (26), a first contact surface (32), and a second contact surface (33); and a second portion (see page 4, lines 6-10) having a first pipe engaging

electrofusion surface (25), a second pipe engaging electrofusion surface (26), a first contact surface (32), and a second contact surface (33) wherein the first portion and the second portion are operable to encapsulate the leak, the first pipe engaging electrofusion surfaces of the first and second portions are operable to couple around the pipe to form a first seal, the second pipe engaging electrofusion surfaces of the first and second portions are operable to couple around the pipe to form a second seal, the first contact surfaces of the first and second portions are operable to sealably couple with one another, the second contact surfaces of the first and second portions are operable to sealably couple with one another; encapsulating the leak in the plastic pipe with the first portion and a second portion; electrofusing the first portion and the second portion together at the first contact surfaces; electrofusing the first portion and the second portion together at the second contact surfaces; electrofusing the first and second pipe engaging electrofusion surfaces of the first and second portions; and electrofusing the second pipe engaging electrofusion surfaces of the first and second portions.

Referring to claim 25, Hintzen discloses the method as defined by claim 24 wherein the apparatus provided further comprises at least one terminal (28) connected to the apparatus electrically operable to energize first and second pipe engaging electrofusion surfaces of the first and second portions, and wherein the method further includes energizing the terminal on the apparatus to electrofuse the first and second pipe engaging electrofusion surfaces of the first and second portions.

Applicants have amended claims 13 and 24 to add the additional element that the apparatus includes a first terminal attached to the first portion, a second terminal electrically

coupleable to the first terminal, a communication line positioned to electrically couple the first and second portions when the first and second portions are positioned for engagement such that when electricity is applied to the first and second terminals, the electricity is communicated to energize the electrofusion surfaces of the first and second portions. Applicants respectfully submit that Hintzen discloses two shells, each having two contact surfaces for a total of four contact surfaces requiring electrical connection for electrofusion purposes. The Schafstein reference also discloses four coupling members in connection with the heating element 17, a novel aspect of the Schafstein reference being that the electricity may be applied in a parallel circuit fashion to the four coupling members to more rapidly electrofuse the surfaces..

However, none of the references cited by the Examiner teach, disclose or even suggest a first terminal attached to the first portion, the second terminal electrically coupleable to the first terminal and the communication line positioned to electrically couple the first and second portions when the first and second portions are positioned for engagement with one another. In this manner, the present invention provides that when electricity is applied to the first and second terminals, the electricity is communicated to energize the electrofusion surfaces of both the first and second portions.

This novel configuration allows for energizing the electrofusion surfaces of the first and second portions with only a first and second terminals by providing a communication line positioned between the first and second terminals that

provides the electrical coupling when the first and second portions are brought into engagement with one another. For this reason, the Applicants respectfully submit that the Hintzen reference fails as an anticipatory reference with respect to amended claims 13 and 24 and their corresponding dependent claims 16-18 and 25, respectively. For this reason, Applicants request that the rejection of these claims under 35 U.S.C. §102(b) be withdrawn.

REJECTION CLAIMS 7-12, 14-15, 19-23, 26-27 UNDER 35 U.S.C. §103

In the Office Action mailed May 13, 2002, the Examiner rejected Applicants' claims 7-12, 14-15, 19-23 and 26-27 under 35 U.S.C. §103(a) as being unpatentable over Schafstein and Hintzen further in view of Barrett et al (U.S. Patent No. 5,321,233) and McAfee (U.S. Patent No. 1,858,101). In support of Examiner's rejection, Examiner stated:

5. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over International Patent WO9919136 to Schafstein et al. in view of Barrett et al.

Schafstein et al. disclose the apparatus of claim 6 but do not disclose the plastic pipe is polyethylene. Barrett et al. teaches that electrofusion is a common practice for sealed joining of polyethylene pipe (see col. 1, lines 16-18). Therefore it would be obvious to one skilled in the art to modify the apparatus disclosed by Schafstein et al. to be used on polyethylene pipes as taught by Barrett et al. because that electrofusion is a common practice sealed joining of polyethylene pipe.

Referring to claim 8, Barrett et al. teach (see Fig. 10) wherein a substantially cylindrical body (18)

is provided with a passageway (14) defining an opening extending through the substantially cylindrical body, the passageway in communication with the cavity of the substantially cylindrical body.

6. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over International Patent WO9919136 to Schafstein et al. in view of McAfee ('101).

Schafstein et al. disclose the apparatus of claim 4, that is provided with a plurality of sidewalls (15, 16) extending from the body such that the lower surface is positioned on one end of the sidewall but do not disclose the body is substantially rectangular. McAfee teaches (see Fig. 1) a rectangular box for repairing a leak in a box. McAfee further teaches the rectangular shape helps to support a pipe (see col. 1, line 11-14). Moreover, a change in the shape of a prior art device is a design consideration within the skill of the art. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966). Therefore it would be obvious to one skilled in the art at the time of the invention to modify the apparatus disclosed by Schafstein et al. to include the rectangular shape taught by McAfee to support a pipe and because a change in the shape of a prior art device is a design consideration within the skill of the art.

Referring to claim 10, McAfee teaches a plurality of sidewalls (13, 14) defines a cavity (18) in the substantially rectangular body, the cavity of the substantially rectangular body in communication with the leak portion of a pipe.

7. Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over International Patent WO9919136 to Schafstein et al. in view of McAfee ('101) as applied to claim 10 above, and further in view of Barrett et al. ('233).

Schafstein et al., as modified, discloses the apparatus of claim 10 but does not disclose the plastic pipe is polyethylene pipe (see col. 1, lines 16-18). Therefore it would be obvious to one skilled in the art to further modify the apparatus disclosed by Schafstein et al. to be used on polyethylene pipes as taught by Barrett et al. because that electrofusion is a common practice for sealed joining of polyethylene pipe.

Referring to claim 12, Barrett et al. teach (see Fig. 10) wherein a body (18) is provided with a passageway (14) defining an opening extending through the body, the passageway in communication with the cavity of the body. McAfee teaches a substantially rectangular body.

8. Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over German Patent DE29722603 to Hintzen in view of International Patent WO9919136 to Schafstein et al.

Hintzen disclose a apparatus of claim 13 wherein the apparatus further includes a terminal (28) attached to the first portion, the terminal operable to energize the first and second engaging electrofusion surfaces of the second portion. Schafstein teaches (see Fig. 2) an apparatus wherein the apparatus further includes a terminal (18) attached to the first portion, the terminal operable to energize the electrofusion surfaces of the first and second portions. Schafstein further teaches that the apparatus is designed to shorten the fusing time and decreases the amount of heating needed to join the members (see page 2, lines 21-16). Therefore it would be obvious to one skilled in the art at the time of the invention to modify the apparatus disclose by Hintzen to include a terminal that energizes the electrofusion surfaces of the first and second portions as taught by Schafstein to shorten the fusing time and decreases the amount of heating needed to join the members.

Referring to claim 15, Schafstein teaches (see Fig. 1) wherein a first portion (10) further includes a first electrical connector (28) attached thereto connectable to a second electrical connector (29) attached to the second portion (13) operable to communicate electricity from the terminal to the engaging electrofusion surfaces of the second portion.

9. Claims 19-23 and 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over German Patent 29722603 to Hintzen in view of Barrett et al. ('233).

Hintzen discloses an apparatus of claim 13 but does not disclose a fastener. Barrett teaches (see Fig. 1) an apparatus that further includes a fastener (28) operable to secure first (16) and second (20) portions together. Barrett et al. teach that the fasteners help the first and second portions of the apparatus to be securely coupled together in tight fitting engagement about the pipe (see col. 4, lines 8-11). Therefore it would be obvious to one skilled in the art at the time of the invention to modify the apparatus disclosed by Hintzen to include fasteners as taught by Barrett et al. to securely couple the first and second portions together in tight fitting engagement about the pipe.

Referring to claim 20, Hintzen discloses wherein the first and second pipe engaging electrofusion surfaces (25, 26) and the first and second contact surfaces (32) of the first portion define a sidewall providing a cavity (5) within the first portion such that the cavity communicates with a leak portion of the plastic pipe.

Referring to claim 21, Barrett et al. teach wherein a first portion (16) is provided with a passageway (14) defining an opening extending therethrough the first portion, the passageway in communication with the cavity (at 12) of the first portion.

Referring to claim 22, Hintzen discloses wherein the first and second pipe engaging electrofusion surfaces (25, 26) and the first and second contact surfaces (32) of the second portion (see page 3, lines 6-10) define a sidewall providing a cavity (5) within the second portion such that the cavity communicates with a leak portion of the plastic pipe.

Referring to claim 23, Barrett et al. teach a plastic pipe is a polyethylene pipe (see col. 1, lines 16-18).

Referring to claim 26, Hintzen disclose a method as defined in claim 25. Hintzen does not disclose a fastener. Barrett et al. teach apparatus further includes a fastener (27) on at least one of a first (16) and second portions (26) operable to secure the first portion to the second portion, and wherein a method further includes fastening the fastener to secure the first portion to the second portion about a plastic pipe (12). Barrett et al. teach that the fasteners help the first and second portions of the apparatus to be securely coupled together in tight fitting engagement about the pipe (see col. 4, lines 8-11). Therefore it would be obvious to one skilled in the art at the time of the invention to modify the method disclosed by Hintzen to include fasteners as taught by Barrett et al. to securely couple the first and second portions together in tight fitting engagement about the pipe.

Referring to claim 27, Barrett et al. teach wherein the apparatus further includes an opening (14) in at least one of the first and second portions communicating with the leak in the plastic pipe, and wherein the method further comprises being able to test a leak in the plastic pipe via the opening in the apparatus; and sealably covering (at 14a) the opening in the apparatus.

Claim 7 depends from amended independent claim 2, and a number of intervening claims, and includes all of the elements of claim 7 as well as the intervening and base claims. For the reasons stated above, which are incorporated herein by reference, Applicants submit that the prior art references fail to disclose, teach or suggest Applicants' claim 7.

Regarding claim 8, Applicants submit that the Barrett reference discloses a cylindrical flange extending from an upper sleeve member, the cylindrical flange adapted for receiving a tapping tool 40 having a cutting bit 42 for cutting a hole in the distribution line 12 for maintenance, such as to permit a line plug 44 to be inserted in the distribution line through the cylindrical flange 14. (see Col. 4, Lines 37-45) Applicants submit that a cylindrical flange accessible for repair and plug insertion is completely different and does not teach, disclose or suggest the substantially cylindrical body being provided with a passageway defining an opening extending through the substantially cylindrical body such that the passageway is in communication with the cavity of the body as claimed in Applicants' claim 8.

Furthermore, Applicants' claim 8 depends from, inter alia, amended claim 2 which, as previously discussed above and incorporated herein by reference, includes limitations not found in the references cited by the Examiner. Similarly, Applicants' dependent claims 9-12 depend from amended claim 2 which includes limitations that are neither taught, suggested or disclosed in the prior art and include the additional limitations of claims 9-12. For this reason, Applicants submit that Applicants'

claims 7-12 would not have been obvious to one of ordinary skill in the art and are allowable. For this reason, Applicants respectfully request that the Examiner withdraw the rejection of these claims.

Applicants have cancelled claims 14 and 15 obviating Examiner's rejection of these claims.

Applicants' claims 19-32 depend from amended independent claim 13, as well as intervening claims, and include all of the limitations in amended claim 13 which, as previously discussed above and incorporated herein by reference, are neither taught, disclosed or suggested by the references cited by the Examiner. Furthermore, Applicants' claims 20-22 further disclose that the first portion is provided with a passageway defining an opening extending through the first portion the passageway in communication with the cavity of the first portion. As discussed above, and incorporated herein by reference, Applicants submit that the cylindrical flange of the Barrett reference does not teach, disclose or suggest Applicants' invention as claimed in Applicants' claims 21 and 22. For these reasons, Applicants submit that claims 19-32 would not have been obvious to one of ordinary skill in the art and Applicants respectfully request that the Examiner withdraw the rejection under 35 U.S.C. §103(a) and pass the same to issue.

Applicants have cancelled claim 25, obviating Examiner's rejection in this regard.

Applicants' claims 26 and 27 include novel additional elements and depend from amended independent claim 24 which, as previously discussed above and incorporated herein by reference,

includes a first terminal attached to the first portion, a second terminal electrically coupleable to the first terminal, and a communication line positioned to electrically couple the first and second portions when the first and second portions are positioned for engagement with one another. Thus, when electricity is applied to the first and second terminals, the electricity is communicated, via the communication line, to energize the electrofusion surfaces of the first and second portions. Applicants submit that none of the references cited by the Examiner teach, disclose or suggest these novel aspects and, for this reason, claims 26 and 27, which depend therefrom, would not have been obvious to one of ordinary skill in the art and are allowable. Applicants respectfully request that the Examiner withdraw the rejection of these claims under 35 U.S.C. §103(a) and pass the same to issue.

OTHER REFERENCES

The references cited by the Examiner but not relied on have been reviewed. However, Applicants believe that none of the references, either singularly or in combination, disclose, teach, or even suggest Applicants' invention as disclosed and claimed in the present application. Thus, no further comments concerning such references are deemed necessary.

INFORMATION DISCLOSURE STATEMENT

Applicants filed an Information Disclosure Statement in the present case, a copy of which was returned with the Office Action Mailed on May 13, 2002. However, the copy of the IDS

received by Applicants was incomplete, in that, the first page was cut-off. Also, it does not appear that Examiner initialed the reference entitled "Picture entitled 'Die Revolution in Graben!'" under the "Other Art" heading on the second page of the IDS. Applicant respectfully requests an additional copy of the IDS considered by Examiner.

SUMMARY

It is respectfully submitted that the application, as now pending, is in condition for allowance for the reasons stated above. Therefore, it is respectfully requested that the Examiner allow claims 2-13, 16-24 and 26-27 and pass such claims to issue. Should the Examiner have any questions regarding this amendment, or the remarks contained herein, Applicants' attorney would welcome the opportunity to discuss this matter with Examiner. Applicants' attorney can be reached at 214.979.3093.

To the extent that any further fees are required during the pendency of this Application, including petition fees, the Commissioner is hereby authorized to charge payment of any additional fees, including, without limitation, any fees under 37 C.F.R. §1.16 or 37 C.F.R. §1.17, to Deposit Account No. 23-3189 of Hunton & Williams (Dallas) and reference Attorney Docket No. 82274.472022. In the event that any additional time is needed for this filing, or any additional time in excess of that requested in a petition for an extension of time, please consider this a petition for an extension of time for any needed extension of time pursuant to 37 C.F.R. §1.136 or any other section or provision of Title 37. Applicants respectfully

ATTORNEY DOCKET NO. 82274.472020
CUSTOMER NO. 24347

AMENDMENT AND RESPONSE
SERIAL NO. 09/800,387

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request that the Commissioner grant any such petition and authorize the Commissioner to charge the Deposit Account referenced above. Please credit any overpayments to this same Deposit Account.

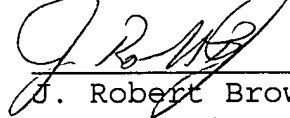
This amendment is intended to be a complete response to the Office Action mailed May 13, 2002.

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CUSTOMER NO. 24347

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Respectfully submitted,



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EXHIBIT A

The apparatus further includes a fastener [fastner] and a terminal electrically connected to the electrofusion element operable to energize the electrofusion element. The fastener is operable to secure the apparatus to the plastic pipe.

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EXHIBIT B

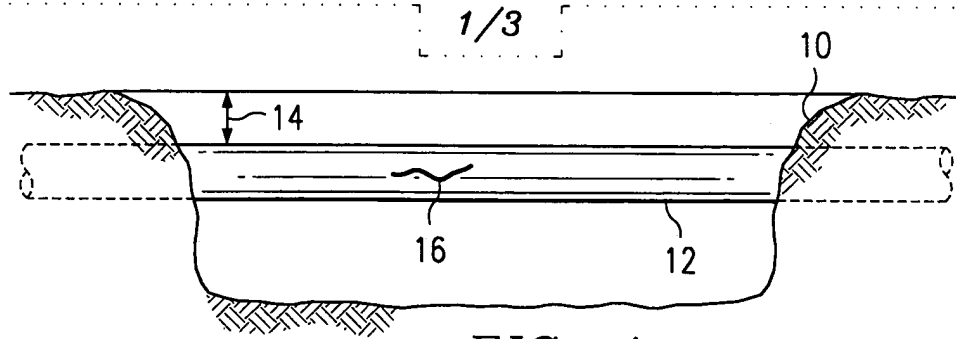


FIG. 1

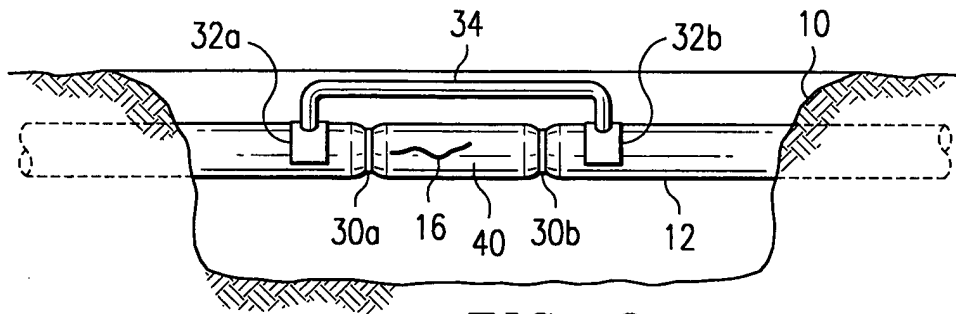
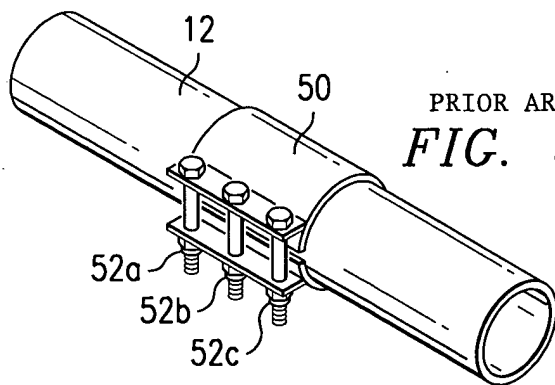


FIG. 2 PRIOR ART



PRIOR ART
FIG. 3

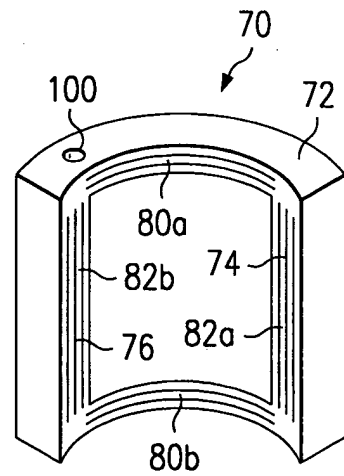


FIG. 4

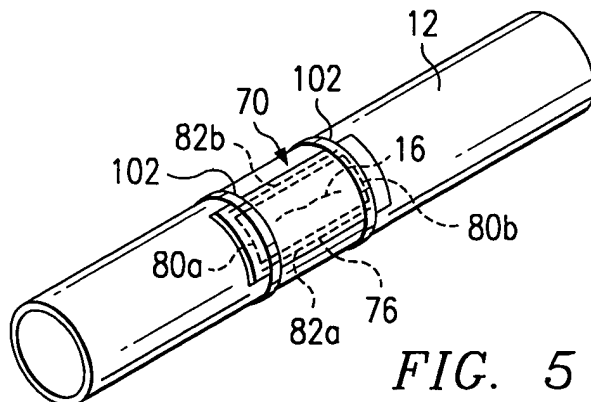


FIG. 5

EXHIBIT C

1. (Cancelled) An apparatus for use in repairing a leak in a plastic pipe, the apparatus comprising:

a body constructed of a substantially rigid material and having an upper surface and a lower surface, the lower surface adapted to be positionable about at least a leak portion of a plastic pipe; and

an electrofusion element disposed about the lower surface of the body operable to sealably couple with the plastic pipe to encapsulate the leak.

2. (Amended) [The apparatus of claim 1 wherein the electrofusion element disposed about the lower surface of the body] An apparatus for use in repairing a leak in a plastic pipe, the apparatus comprising:

a single body constructed of a substantially rigid material and having an upper surface and a lower surface, the lower surface adapted to be positionable about at least a leak portion of a plastic pipe; and
an electrofusion element disposed about the lower surface of the body substantially defining [defines] a perimeter positionable adjacent the leak portion of the plastic pipe to sealably couple with the plastic pipe to encapsulate the leak.

3. The apparatus of claim 2 wherein the apparatus further includes a terminal electrically connected to the electrofusion

element operable to energize the electrofusion element.

4. The apparatus of claim 3 wherein the apparatus further includes a fastener operable to secure the apparatus to the plastic pipe.

5. The apparatus of claim 4 wherein the body is a substantially cylindrical body provided with at least one sidewall extending from the body such that the lower surface is positioned on one end of the sidewall.

6. The apparatus of claim 5 wherein the sidewall defines a cavity in the substantially cylindrical body, the cavity of the substantially cylindrical body in communication with the leak portion of the plastic pipe.

7. The apparatus of claim 6 wherein the plastic pipe is a polyethylene pipe.

8. The apparatus of claim 7 wherein the substantially cylindrical body is provided with a passageway defining an opening extending through the substantially cylindrical body, the passageway in communication with the cavity of the substantially cylindrical body.

9. (Amended) The apparatus of claim 4 wherein the body is a substantially rectangular body provided with a plurality of sidewalls extending from [form] the body such that the lower

surface is positioned on one end of the sidewall.

10. The apparatus of claim 9 wherein the plurality of sidewalls defines a cavity in the substantially rectangular body, the cavity of the substantially rectangular body in communication with the leak portion of the plastic pipe.

11. The apparatus of claim 10 wherein the plastic pipe is a polyethylene pipe.

12. The apparatus of claim 11 wherein the substantially rectangular body is provided with a passageway defining an opening extending through the substantially rectangular body, the passageway in communication with the cavity of the substantially rectangular body.

13. (Amended) An apparatus for use in repairing a leak in a plastic pipe, the apparatus comprising:

- a first portion having a first pipe engaging electrofusion surface, a second pipe engaging electrofusion surface, a first contact surface, and a second contact surface;
[and]

- a second portion having a first pipe engaging electrofusion surface, a second pipe engaging electrofusion surface, a first contact surface, and a second contact surface wherein the first portion and the second portion are operable to encapsulate the leak, the first pipe engaging electrofusion surfaces of the first and

second portions are operable to couple around the pipe to form a first seal, the second pipe engaging electrofusion surfaces of the first and second portions are operable to couple around the pipe to form a second seal, the first contact surfaces of the first and second portions are operable to sealably couple with one another, and the second contact surfaces of the first and second portions are operable to sealably couple with one another;

a first terminal attached to the first portion;

a second terminal electrically coupleable to the first terminal; and

a communication line positioned to electrically couple the first and second portions when the first and second portions are positioned for engagement such that when electricity is applied to the first and second terminals, the electricity is communicated to energize the electrofusion surfaces of the first and second portions.

14. (Cancelled) The apparatus of claim 13 wherein the apparatus further includes a terminal attached to the first portion, the terminal operable to energize the first and second pipe engaging electrofusion surfaces of the first and second portions.

15. (Cancelled) The apparatus of claim 14 wherein the first portion further includes a first electrical connector attached thereto connectable to a second electrical connector attached to

the second portion operable to communicate electricity from the terminal to the first and second pipe engaging electrofusion surfaces of the second portion.

16. The apparatus of claim 13 wherein the apparatus further includes a first and a second terminal, the first terminal attached to the first portion and operable to energize the first and second pipe engaging electrofusion surfaces of the first portion, the second terminal attached to at least one of the first and second portions and operable to energize the first and second pipe engaging electrofusion surfaces of the second portion.

17. The apparatus of claim 13 wherein the first and second contact surfaces of the first portion are further provided with electrofusion elements operable to sealably couple the first contact surfaces of the first and second portions to one another and operable to sealably couple the second contact surfaces of the first and second portions to one another.

18. The apparatus of claim 13 wherein the first and second contact surfaces of the first and second portions are further provided with electrofusion elements operable to sealably couple the first contact surfaces of the first and second portions to one another and operable to sealably couple the second contact surfaces of the first and second portions to one another.

19. The apparatus of claim 13 wherein the apparatus further

includes a fastener operable to secure the first and second portions to one another.

20. The apparatus of claim 19 wherein the first and second pipe engaging electrofusion surfaces and the first and second contact surfaces of the first portion define a sidewall providing a cavity within the first portion such that the cavity communicates with a leak portion of the plastic pipe.

21. The apparatus of claim 20 wherein the first portion is provided with a passageway defining an opening extending therethrough the first portion, the passageway in communication with the cavity of the first portion.

22. The apparatus of claim 20 wherein the the first and second pipe engaging electrofusion surfaces and the first and second contact surfaces of the second portion define a sidewall providing a cavity within the second portion such that the cavity communicates with a leak portion of the plastic pipe.

23. The apparatus of claim 22 wherein the plastic pipe is a polyethylene pipe.

24. (Amended) A method for sealing a leak in a plastic pipe comprising:

providing an apparatus comprising:

a first portion having a first pipe engaging electrofusion surface, a second pipe engaging electrofusion surface,

a first contact surface, and a second contact surface,
[;and]

a second portion having a first pipe engaging electrofusion surface, a second pipe engaging electrofusion surface, a first contact surface, and a second contact surface wherein the first portion and the second portion are operable to encapsulate the leak, the first pipe engaging electrofusion surfaces of the first and second portions are operable to couple around the pipe to form a first seal, the second pipe engaging electrofusion surfaces of the first and second portions are operable to couple around the pipe to form a second seal, the first contact surfaces of the first and second portions are operable to sealably couple with one another, and the second contact surfaces of the first and second portions are operable to sealably couple with one another, [;]

a first terminal attached to the first portion,

a second terminal electrically coupleable to the first terminal,

a communication line positioned to electrically couple the first and second portions when the first and second portions are positioned for engagement such that when electricity is applied to the first and second terminals, the electricity is communicated to energize the electrofusion surfaces of the first and second portions; and

encapsulating the leak in the plastic pipe with the a first portion and a second portion;
electrofusing the first portion and the second portion together at the first contact surfaces;
electrofusing the first portion and the second portion together at the second contact surfaces;
electrofusing the first and second pipe engaging electrofusion surfaces of the first and second portions; and
electrofusing the second pipe engaging electrofusion surfaces of the first and second portions.

25. (Cancelled) The method as defined by claim 24 wherein the apparatus provided further comprises at least one terminal connected to the apparatus electrically operable to energize first and second pipe engaging electrofusion surfaces of the first and second portions, and wherein the method further includes energizing the terminal on the apparatus to electrofuse the first and second pipe engaging electrofusion surfaces of the first and second portions.

26. (Amended) The method as defined by claim 24 [25] wherein the apparatus further includes a fastener [fastner] on at least one of the first and second portions operable to secure the first portion to the second portion, and wherein the method further includes fastening the fastener to secure the first portion to the second portion about the plastic pipe.

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27. The method of claim 26 wherein the apparatus further includes an opening in at least one of the first and second portions communicating with the leak in the plastic pipe, and wherein the method further comprises:

testing the leak in the plastic pipe via the opening in the apparatus; and
sealably covering the opening in the apparatus.